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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,749	12/21/2001	Joakim O. Blanch	1391-27201	8742

23505 7590 02/06/2003

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EXAMINER

LE, TOAN M

ART UNIT	PAPER NUMBER
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2862

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application No. 10/027,749	Applicant(s) BLANCH ET AL.
	Examin r Toan M Le	Art Unit 2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.

 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.

 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

 - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 December 2001.

 2a) This action is FINAL. 2b) This action is non-final.

 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-57 is/are pending in the application.

 4a) Of the above claim(s) 20-29 and 38-57 is/are withdrawn from consideration.

 5) Claim(s) _____ is/are allowed.

 6) Claim(s) 1-19 and 30-37 is/are rejected.

 7) Claim(s) _____ is/are objected to.

 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

 If approved, corrected drawings are required in reply to this Office action.

 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a) All b) Some * c) None of:

 1. Certified copies of the priority documents have been received.

 2. Certified copies of the priority documents have been received in Application No. _____.

 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

 a) The translation of the foreign language provisional application has been received.

 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

 4) Interview Summary (PTO-413) Paper No(s) _____.

 5) Notice of Informal Patent Application (PTO-152)

 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. **Claims 1-19 and 30-37**, drawn to measurement system in a specific environment for formation characteristics, classified in **class 702, subclass 11**.
 - II. **Claims 20-29**, drawn to seismic prospecting using shear wave, classified in **class 367, subclass 75**.
 - III. **Claims 38-57**, drawn to seismic prospecting related to phase determination, classified in **class 367, subclass 48**.
2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
4. During a telephone conversation with Mark Scott on 1/23/03 a provisional election was made with traverse to prosecute the invention of **I, claims 1-19 and 30-37**. Affirmation of this election must be made by applicant in replying to this Office action. **Claims 20-29 and 38-57** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-19 and 30-37 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Referring to claims 1 and 30, in lines 9-12, “estimate source waveforms from the decomposed waveforms to create estimated source waveforms; and comparing the estimated source waveforms to determine characteristics of the anisotropic earth formation”, it is not clear how the estimate source waveforms is defined from the equation 1, on page 7, which is

$$S_{ESTi}(t) = [TF]^{-1} R_i(t) \text{ where } [TF] \text{ is the assumed transfer function, which is not clearly defined.}$$

As to claim 4, in lines 4-5, “estimating a transfer function of the anisotropic earth formation comprising at least a strike angle for the anisotropy and an acoustic velocity”, it is not clear how the estimated transfer function is defined comprising the strike angle and the acoustic velocity.

Claims 2-19 and 31-37 are rejected being dependent to rejected claims 1 and 30, respectively.

With respect to claims 1-19 and 30-37, no rejection on art is proper at this time due to the informal nature of the claims as noted above in the 112 rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M Le whose telephone number is (703)305-4016. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (703)305-4816. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-0956.

Toan Le

February 4, 2003



EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800